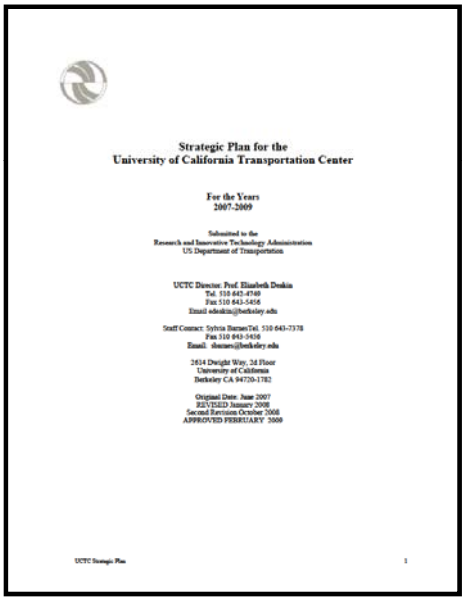
UCTC

UCTC Strategic Plan 2007-2009

Approved February 2009



Strategic Plan for the
University of California Transportation Center

For the Years
2007-2009

Submitted to the
Research and Innovative Technology Administration
US Department of Transportation

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Berkeley CA 94720-1782

Original Date: June 2007
REVISED January 2008
Second Revision October 2008
APPROVED FEBRUARY 2009

UCTC Strategic Plan 1

UCTC Current Organizational Structure

UCTC

Associate Directors/ Executive Committee
Matthew Barth UC Riverside
Kostadinos Goulias UC Santa Barbara
Samer Madanat UC Berkeley
Stephen Ritchie UC Irvine
Brian Taylor UCLA

Director
Robert Cervero

Advisory Committee
Larry Dahms, MTC (emeritus)
Robert Dunphy, ULI (emeritus)
Debra Elston, FHWA
Gail Goldberg, City of Los Angeles
Jose Luis Moscovich SFCTA
Larry Orcutt, Caltrans
Fred Salvucci, MIT

Assistant Director
Karen Frick

Faculty Editor, Acess
Donald Shoup, UCLA

UCLA Access Support Staff

Financial Manager
Sylvia Barnes

Support Staff
- **Post Doc:** Gil Tal
- **Graduate Student Researchers:**
  Melanie Curry
  Aaron Malinoff
- **Post Undergraduate:**
  Justin Shiu
- **Undergraduate Assistants:**
  Emily McGuire
  Alison Toibola

UCTC Advisory Committee

UCTC

José Luis Moscovich,
SFCTA

Gail Goldberg,
City of Los Angeles

Larry Orcutt,
Caltrans

Debra Elston,
FHWA

Larry Dahms,
MTC (emeritus)

Fred Salvucci,
MIT

Robert Dunphy,
ULI (emeritus)

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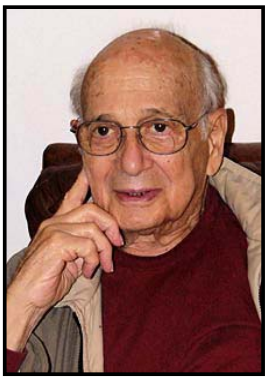
UCTC Directors

1988 - 1995	Yr 1-8	Melvin Webber	City & Regional Planning, UCB
1995-1999	Yr 9-12	Martin Wachs	City & Regional Planning & Civil Engineering, UCB
1999-2009	Yr 9-21	Elizabeth Deakin	City & Regional Planning, UCB
2009-present	Yr 22	Robert Cervero	City & Regional Planning, UCB




Partnerships

UCTC

- **UTC Center Directors-Caltrans Committee** (UCTC, Mineta, Metrans, Leonard, Davis)

UC Berkeley	**ITS** (Institute of Transportation Studies); **PATH** (Partners for Advanced Transit & Highways); **CCIT** (California Center for Innovative Transportation); **NEXTOR** (National Center of Excellence for Aviation Research; **PRC** (Pavement Research Center); **TSC** (Traffic Safety Center); **BCFUT** (Berkeley Center for Future Urban Transport – Volvo Foundation); **CST** (Center for Sustainable Transport); **IURD** (Institute of Urban and Regional Development); **GMSC** (Global Metropolitan Studies Center); **CSC** (Center for a Sustainable California)
UC Irvine	**ITS** (Institute of Transportation Studies); **PATH** (Partners for Advanced Transit & Highways) – Advanced Testbed Research Program; Advanced Transportation Management
UCLA	**ITS** (Institute of Transportation Studies); **LCRPS** (Lewis Center for Regional Policy Studies)
UC Riverside	**CE-CERT** (Center for Environmental Research and Technology)
UC Santa Barbara	**CSISS** (Center for Spatially Integrated Social Sciences); **NCRST** (National Consortium for Remote Sensing in Transportation)

UCTC

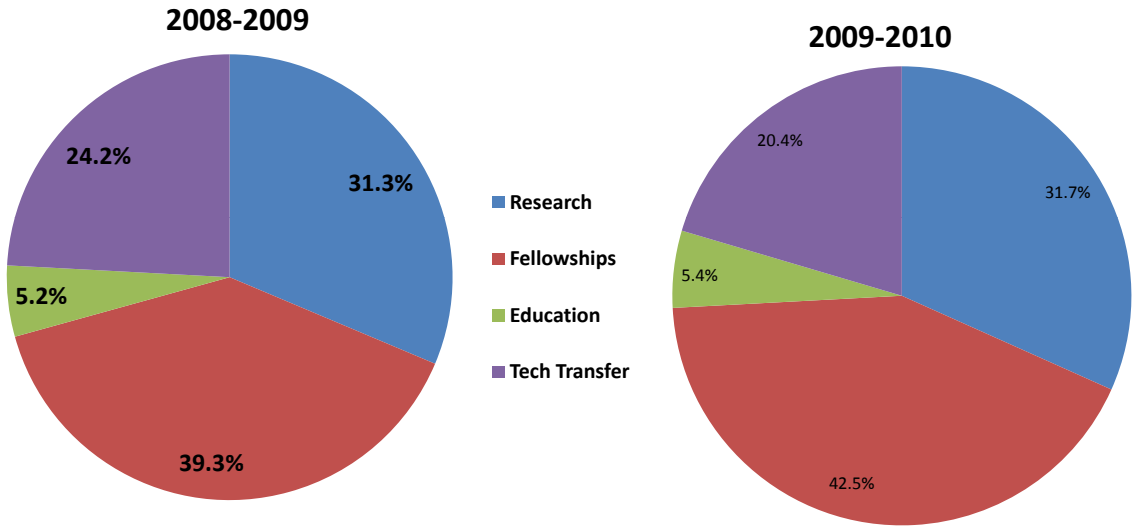
Cooperative Work with Other UTCs

- Co-participation with Regional UTCs in developing a *Transportation Leadership Graduate Certificate* on "Transportation Policy, Management, and Operation"

- Educational Partner with University of New Orleans's Center for Evacuation and Transportation Resiliency: National Evacuation Conference, February 2010.

UCTC's Programmatic Budgets

FY 2008-9 & 2009-10



UCTC Theme & Vision

THEME:

Transportation Systems Analysis and Policy

- **Multi-disciplinary**
- **Intermodal Transport, including surface passenger & freight topics and issues**

VISION:

"Excellence in Transportation Education & Research by fostering the development of a vibrant network of Transportation Professionals who put their education and research findings into practice"

UCTC Research

Priority Areas:

- Reforming Local Government Transportation and Land Use Practices
- New Urban Designs for Multimodal Transportation
- Improving Traffic Surveillance, Data Collection and Processing, Modeling, and Operations
- Alternative Strategies for Managing Congestion
- Planning for Security in Urban Transportation
- Improving Transit Operations and Encouraging Transit Use
- Transportation Air Quality, Energy and Climate Change Concerns
- Protecting and Enhancing the Built and Natural Environment
- Transportation Asset Management
- New Strategies for Transportation Finance
- Understanding Travel Behavior
- Improved Methods of Goods Movement
- New Institutional Arrangements for Effective Transport Delivery
- Improved Response to the Transportation Needs of Diverse Populations

UCTC Research

New Areas Recommended by Advisory Committee (meeting on Sept. 14, 2009):

- **Reducing the disconnect between Transportation Systems Analysis, Policy-making, and Practice**
- **Retrospective analysis on the impacts of large-scale Transportation Infrastructure […BART, Port Expansions, HOT lane networks)… to inform design and practice of future mega-projects (e.g., HSR)]**
- **Strategies and methods for improving the communication of research results**

UCTC Research Solicitation & Review Process

Solicitation:

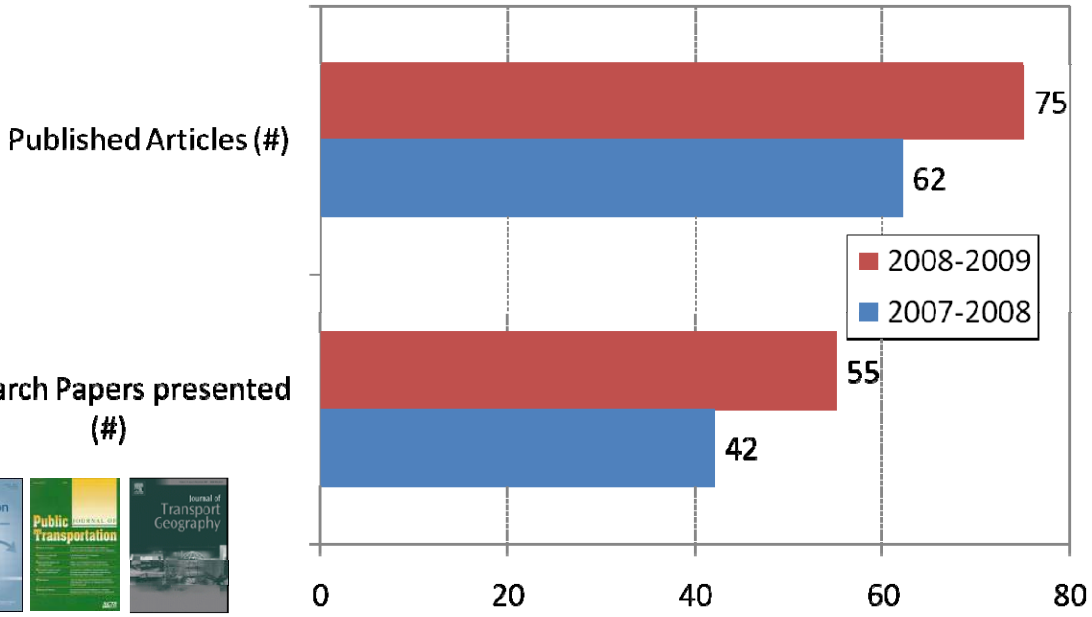
- **Annual Call…due March 1**
- **10-page proposals from faculty on all UC campuses: objectives, methods & data, tasks, budget, schedule/milestones**

Review Process:

- **Blind external reviews…≥ 3 more reviewers;**
  FY2009-10 (131 reviewers or 5.7 per proposal)
- **Proposals rated, ranked, and selected by Director with input from Caltrans DRI**

UCTC Faculty
Research Performance Metrics

UCTC



Human Resources

Other UCTC Faculty Support

- Start-Up Grants for New Transportation Faculty
- Help with Faculty Recruitment Efforts
- Extra summer support to Assistant Professors conducting transportation research
- Support of faculty-led workshops and symposia
- Support, market, and promote new transportation courses

Joan Walker,
CEE
UCB

Dan Chatman,
Planning
UCB

Wenlong Jin,
CEE
UCI

Doug Houston,
Planning
UCI

Rui Wang,
Planning
UCLA

Education

Transportation Degree Programs at UCTC Campuses

	Civil Engineering	City Planning/ Public Policy	Economics	Geography	Joint C.E./City Planning
UC Berkeley	★	★			★
UC Irvine	★	★	★		
UCLA		★			
UC Riverside	★				
UC Santa Barbara				★	

Tradition of Excellence

- **Geography:** phds.org: UCSB #1 of the "large, prestigious" Geography programs in the USA
- **Civil Engineering**: UC Berkeley: #1, *US News & World Report*, 2009; growing recognition of programs at Irvine & Riverside as well
- **Transportation Planning**: UC Berkeley & UCLA, Top 2 ranked programs, *Planetizen 2009 Guide to Graduate Urban Planning Programs*

Student Support

- **GSRs** – average 35-50 per year at 25%-50% time; covers fees and Non-Resident Tuition
- **UCTC Fellowships** -- university fees & living expenses; nominate by departments on basis of grades, test scores, letters of recommendation, and accomplishments
- **Dissertation Grants** – 10 per year ($15K; plan to increase to $20K and possibly higher); 155 filed
- **Travel Grants** – Attend and present at TRB and other conferences (including California UTC & UCTC Student conference)

UCTC Student of the Year Award

- Each Year, UCTC affiliated faculty nominate and vote on a Student of the Year
- $1000 plus expenses to attend the award ceremony held at TRB in January

2008-2009 Recipient: Doug Houston, PhD in urban planning from UCLA; faculty member in urban planning at UC Irvine.

Dissertation: The near-roadway air pollution impacts of goods movement and transportation corridors. This work drew from field and health studies to study the health effects and environmental justice implications of vehicle exhaust, especially from diesel trucks, showing they are often highly concentrated immediately downwind of major roadways.

UCTC Education Performance Metrics

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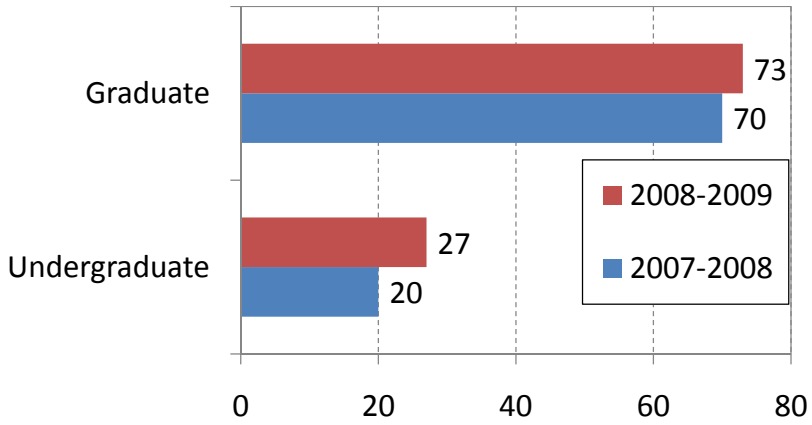
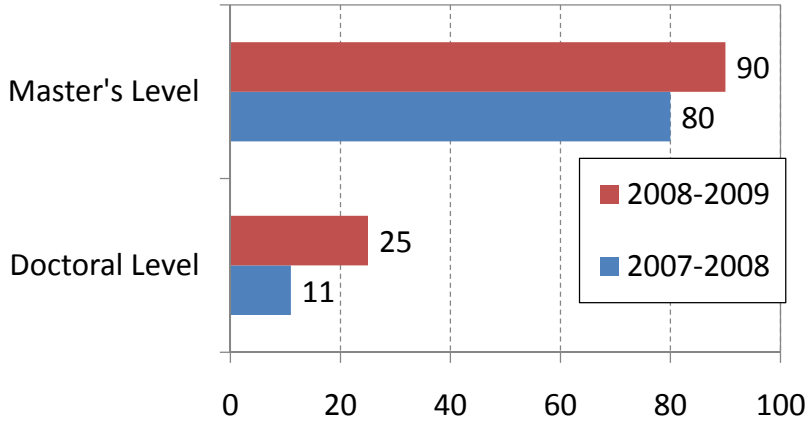
Courses in Transportation 5 UCTC Campuses



 # Students Receiving Advanced Degrees in Transportation 5 UCTC Campuses



UCTC Strategic Plan Policy
Undergraduate Education

- "In reviewing educational accomplishments over the past decade, the UCTC Executive Committee concluded that *educational initiatives* that will further expand our *outreach to undergraduates* should receive more attention". (p. 15)

UCTC

Enhancing Undergraduate Education

UCTC

"Experiencing overjoyment… priceless"

(photo: K. Frick)

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Key Questions

1) What additional skills would benefit undergraduates? What would they like to learn?

2) How would they like to learn?

3) How can we phase in a lower cost, sustainable educational options across the UCTC campuses?

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What We've Done in FY2009-10 So Far

- Focus groups with 35 Berkeley students, diverse cross section
- Discussions with UCTC faculty (will continue with exec board tomorrow)
- UCLA goods movement & logistics course, Spring 09
- Mentor to 14 undergrads in city planning course

Special thanks to Justin Shiu, our first "post undergraduate"

UCTC

Take-away # 1 – Skills & Interests

- Mainly interested in "what the real world does"—hand on, tangible experiences
- Would like to go in-depth on planning, engineering (research)
- Need to improve oral and writing skills, esp for policy settings
- Advice on jobs, graduate school
- Receive course credit

Take-away # 2 – Develop New Initiative

"Center for Undergraduate Innovation"

– Multi-campus, tailored to needs of campus, phased in. Could include:
  - summer internship with a UCTC associate director (modeled after USDOT STPDG)
  - attendance at California UTC and UCTC student conferences (fee waiver or discount)
  - post undergraduate papers on UCTC website
  - info on grad school & internships, mentorships, scholarships

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Potentially at individual campuses

- 1 to 2 week intersession course*
- 1 to 2 unit course during term*
- Traveling colloquium (field trips/site visits to projects & offices to see the real world)
- Lecture series with practitioners

* Students suggest real world project with client or special topics

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Studio Course—client based, hands on—like a mini public dept or consulting firm

Undergraduate studio

if grad. studio: undergraduates could enroll

Juju Wang as undergraduate in grad. studio, currently a grad student

UCTC

Next Steps

Discuss & develop action plan with exec committee

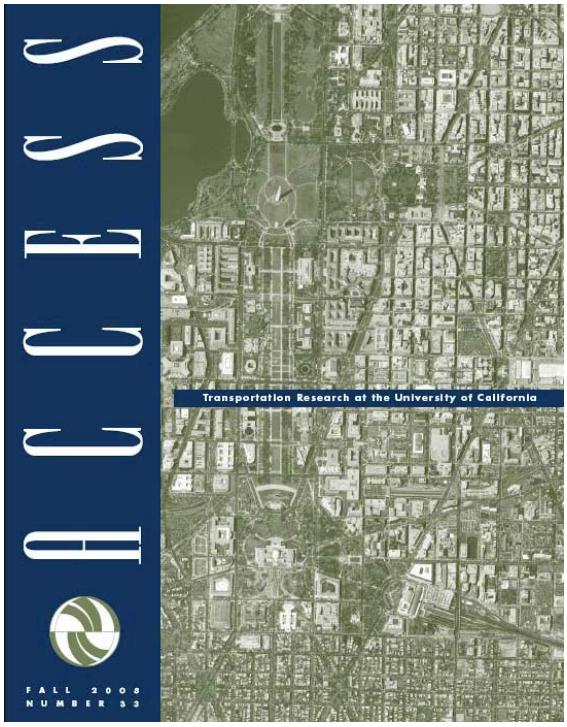
Additional outreach at other campuses, discuss with academic advisors

Spring graduate studio at Berkeley—encourage undergraduate enrollment, particularly from current set of advisees this semester

(photo: K. Frick)

Technology Transfer & Assistance

UCTC



20,000 readers across the U.S. & abroad (print copies)

Additional 15,000 readers download access

UCTC Policy Brief Series

UCTC

UCTC POLICY BRIEF 09-01

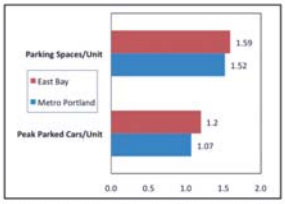
ARE TODS OVER-PARKED?[1]

Robert Cervero, Arlie Adkins, and Cathleen Sullivan

ISSUE Many apartment projects near urban rail stations, critics charge, are "over-parked" – more parking is provided than needed. This can drive up the cost of housing, consume valuable land near transit, and impose environmental costs such as water pollution from enlarged impervious surfaces.

Part of the blame for oversupply of parking in TODs (transit-oriented developments) could be the reliance on parking generation figures from the Institute of Transportation Engineers (ITE). ITE standards assume that car ownership levels and parking demands are no different in traditional suburban settings than in neighborhoods that are served by rail transit. Yet some studies suggest that those drawn to living near urban rail stops do so for lifestyle reasons, prompting many not only to ride transit more often but also to get rid of a car.

RESEARCH FINDINGS To study this issue, we surveyed 31 multi-family housing projects near suburban rail stations in the East Bay of San Francisco-Oakland and Metro Portland, Oregon. As the figure shows, TOD parking supply exceeded peak demand (midnight to 6AM) by 25% in the East Bay and 30% in Metro Portland. Peak demand, however, was not too different from ITE's standard of 1.2 spaces/unit. Yet vehicle trip generation rates for some projects were well below ITE standards, suggesting many surveyed residents still owned cars but used them less because of nearby rail services.



Our research also showed that size and distance matter. In general, peak parking levels were highest for large-scale apartment projects with generous amounts of parking per unit and that were farthest from the nearest station. For every 1000 feet walking distance that a project lies from a station, we estimated, peak parking increased by 0.7 cars per dwelling unit. Case study work also showed that apartments served by retail shops, that enjoyed direct access to station platforms, and whose shortest walking path was not too circuitous tended to have lower peak parking levels.

[1] Full Report: R. Cervero, A. Adkins, C. Sullivan, Are TODs Over-parked?, UCTC Research Paper 802, 2009. http://www.uctc.net/papers/802.pdf

Left: Quatama apartments enjoy direct connection to Portland's MAX station; Right: An apartment with high parking demand also suffers from a circuitous shortest path (red line) relative to straight-line distance from the project's center to the Fremont BART station. (black line).

NATIONAL SURVEY We also surveyed professional planners from 80 U.S. municipalities with rail stations to see if their communities adjusted parking ordinances to account for transit's proximity. 35% of rail-served cities allowed lower off-street parking rates for parcels near transit, ranging from 10% to 60% fewer spaces. Also, 37% of respondents felt that their city's minimum off-street parking requirements were too high for housing near rail stops. However, 85% felt that local elected officials would strongly oppose efforts to eliminate minimum parking requirements even if a project is near a rail station.

RECOMMENDATIONS Just as land-use environments vary throughout suburban America, so should parking policies. Parking ordinances should be more flexible for projects situated near rail stops. Based on our research, for example, developers of relatively dense apartments with adjoining retail shops and short, direct walking connections to rail stations should have the option of supplying fewer parking spaces than the norm. Flexibility might also take the form of unbundling the cost of parking from the cost of renting housing or providing residents with the option of choosing transit eco-passes rather than paying for an on-site space. And in light of the fact that TOD residents were found to commute by transit proportionately more than they shed cars or reduced parking, car-sharing should be provided in as many rail-served neighborhoods as possible. Putting shared-cars in and around TODs could relieve many households from owning a second car or a vehicle altogether, which would result in not only considerably lower trip generation rates, but considerably less parking demand as well.

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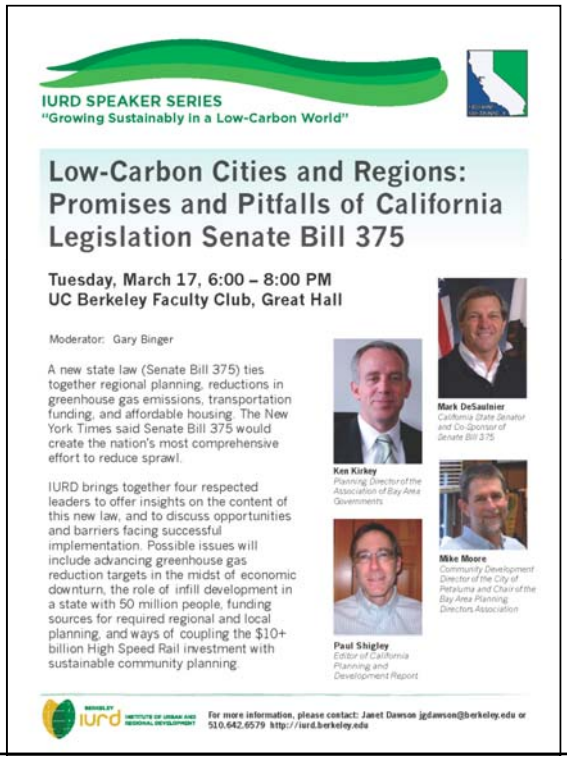
UCTC Supported Speaker Series

Growing Sustainably in a Low-Carbon World

A Pro-active Response to SB375



IURD SPEAKER SERIES
"Growing Sustainably in a Low-Carbon World"

Low-Carbon Cities and Regions: Promises and Pitfalls of California Legislation Senate Bill 375

Tuesday, March 17, 6:00 – 8:00 PM
UC Berkeley Faculty Club, Great Hall

Moderator: Gary Binger

A new state law (Senate Bill 375) ties together regional planning, reductions in greenhouse gas emissions, transportation funding, and affordable housing. The New York Times said Senate Bill 375 would create the nation's most comprehensive effort to reduce sprawl.

IURD brings together four respected leaders to offer insights on the content of this new law, and to discuss opportunities and barriers facing successful implementation. Possible issues will include advancing greenhouse gas reduction targets in the midst of economic downturn, the role of infill development in a state with 50 million people, funding sources for required regional and local planning, and ways of coupling the $10+ billion High Speed Rail investment with sustainable community planning.

iurd INSTITUTE OF URBAN AND REGIONAL DEVELOPMENT

For more information, please contact: Janet Dawson jgdawson@berkeley.edu or 510.642.6579 http://iurd.berkeley.edu

Digitized Slide Project

UCTC

Student Conference—April 1 and 2, 2010 to be hosted by UC Irvine

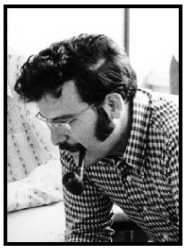
- Approx 125 attendees
- Mel Webber Lecture
- Student and faculty presentations
- Poster session
- Rotates among the campuses

Third Annual California UTC Conference, April 27-28, 2010 at UC Davis

UCTC

Keynote Speaker Gail Goldberg,
City of Los Angeles,
UCTC advisory committee member
"Tackling Congestion in an Era of Climate Change"
200 attendees

- UCTC
- UC Davis
- Metrans (USC, Cal State Long Beach)
- San Jose State, Mineta Institute
- Leonard Center, Cal State San Bernardino



Martin Wachs Distinguished Lecture

UCLA & UC Berkeley

Bent Flyvbjerg, Oxford University, Megaprojects

Anthony May, Leeds University, Sustainable Transport

Discussant: Gail Goldberg

Susan Hanson, Clark University Gender&Mobility

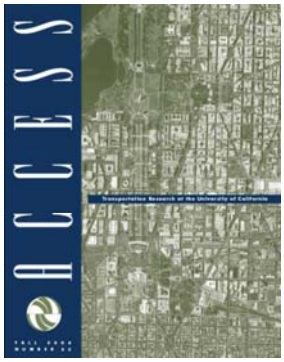
Discussants: Therese McMillan&Celia Kupersmith

April 2010: Alan Altshuler, Harvard University

Recent & Upcoming Tech Transfer Projects

UCTC

- California Strategic Transit Plan
- California Growth Project (Special Access Issues)
- Transit Best Practices



- Bridging the Gap between City Policies and Greenhouse Gas Reductions
- Transportation & Urban Development Images Project